



ALK-280

CPC 71

Low VOC Acrylic Modified Alkyd Enamel

PRODUCT DESCRIPTION

Type: Acrylic Modified Alkyd Enamel

Recommended use

ALK-280 is a fast drying, low VOC enamel intended for industrial use on properly prepared and/or primed metal surfaces. Suitable applications include metal fabrication, castings, cabinets, machinery, and heavy equipment. ALK-280 provides a wide balance of performance properties including excellent gloss, leveling, flexibility and a fast dry.

Where environmental rules allow TBAC as exempt, this product has a ready to spray VOC less than 2.8 lbs/gal. See the back page of this document for guidelines where separate recordkeeping for TBAC emission is required. Where TBAC is not allowed as exempt this product has a ready to spray VOC of 3.5 lbs/gal or lower, see back page for relevant VOC information.

Colors: Virtually any new or existing color standard can be quickly and precisely matched using PPG's COLOR ACCURATE™ instrument matching and dispensing system. Once formulated, batches as small as one gallon can be reproduced time after time without the color drift problems associated with manual small batch methods. All colors supplied from the Color Accurate™ system are formulated to meet Federal standards concerning lead in the dried film.

PHYSICAL CONSTANTS

Weight Per Us Gallon

(Varies by color) 8.23- 10.1 Lb./Gal

Percent Solids By Weight

(Varies by color) 53.6% - 66.7%

Percent Solids By Volume

(Varies by color) 47.9% - 53.8%

Flash Points

Pensky-Martens 76°F (24°C)

VOC

(Varies by color) 3.5 Lb./Gal – where TBAC is not exempt

(Varies by color) 2.8 Lb./Gal – where TBAC is exempt

READY TO SPRAY VISCOSITY (varies by color) #3 Zahn 20 – 30 seconds #2 Zahn N/A

PERFORMANCE FEATURES

Pencil Hardness

B – 4b (Varies By Color)

Flexibility (Conical Mandrel)

Pass

Fade Resistance

Exposure Studies Confirm That The Fade Resistance Of Alk-280 Is Equal To Competitive Low Voc Alkyd Enamels.

96 Hour Humidity Resistance

Good

Sheen

Alk-280 Is Supplied As A Gloss Finish (80 - 95) On A 60° Gloss Meter).

Adhesion

Good

In Service Temperature Limitations

150°F *Note: As You Approach 150°F, Depending On The Pigmentation, The Color May Change But Film Integrity Will Be Maintained Until 150°F.*

CHEMICAL/SOLVENT RESISTANCE

10% Sulfuric Acid	Good	10%Hydrochloric Acid	Fair
Xylene	Poor	Isopropyl Alcohol	Fair
Gasoline	Fair		
500 hours Salt Spray	Good		

Water resistance: Resistant to intermittent exposure. **Not recommended for immersion**

This product may be covered by U.S. Patent No. 6,048,471 and/or U.S. Patent No. 6,306,943

SURFACE PREPARATION

The surface to be coated must be sanded, free of all contamination including dust, dirt, oil, grease and oxidation. Chemical treatment or the use of a conversion coating will improve the adhesion and performance properties of the finished coat.

Metal	Recommended Primers	Direct To Properly Treated Substrate
Cold Rolled Steel	HBA-CT, CRE-CT/904, HSP-900/902, HSP- 2128, EPX-900, EEP-435, VBA-435/735	Good
Hot Rolled Steel	HBA-CT/4035, CRE-CT/904, HSP-900/902, HSP-2128, EPX-900, EEP-435, VBA-435/735	Good
Galvanized	HSP-900/902, HSP-2128, EPX-900, CRE-CT, 904	Not Recommended
Galvaneal	HSP-900/902, HSP-2128, EPX-900, CRE-CT/904	Not Recommended
Aluminum	HBA-CT, CRE-CT/ 904, HSP-900/902, HSP-2128 EPX-900, EEP-435	Fair
Plastic/Fiberglass	Surface should be free of all contamination. Because of the variability of plastic/fiberglass substrates, coating performance should be confirmed on the actual plastic/fiberglass substrate being used.	

APPLICATION DATA

Mixing Directions

Stir thoroughly before and occasionally during use.

Thinning

ALK-280 is supplied ready-to-spray. Acetone may be added up to 10% - 20%. In acetone – exempt areas, this reduction will not increase the VOC.

Pot life

N/A

Recommended Wet Film Build (unreduced)

Spray Application: 3.0 – 4.0 mils

Recommended Dry Film Build

Spray Application: 1.5 - 2.0 mils

Application Equipment

Conventional Spray: 60 psi at the gun.

Drying Time

3 mils wet at 77°F (25°C) and 50% relative humidity.

To Touch: 10 minutes
 To Dust: 15 minutes
 To Handle: 1.5 hours*

Drying Time (cont.)

To Dry: 24 hours**
 Re-coat: 15 minutes to 3 weeks
 Force Dry: Allow 10 minutes air dry then bake 30 minutes @ 120°F (40°C).

* This condition does not mean that the paint film has reached full cure. It is a stage where handling can be achieved without loosening, wrinkling or otherwise marring the film under minimal pressure from fingers or hands. Drying time listed may vary depending upon film build, color selection, temperature, humidity and degree of air movement.

** Paint film is not fully cured for 7 days.

Application of film thickness in excess of that recommended for this product will substantially extend dry time and lengthen the re-coat window. Excess film may also cause problems such as adhesion failure, pigment floatation, solvent popping, slow cure, and accelerated gloss and color failure.

TBAC Status	Counted as exempt*	Not counted as exempt
RTS Combinations:	ALK-280 w/ tints	ALK-280 w/ tints
Volume Ratio:	As is	As is
Applicable Use Category	Single-Stage Ctg	Single-Stage Ctg
VOC Actual (g/L)	139 - 184	348 -391
VOC Actual (lbs/gal)	1.16 -1.53	2.90 -3.26
VOC Regulatory (less water less exempt) (g/L)	210 - 268	373 - 419
VOC Regulatory (less water less exempt) (lbs/gal)	1.75 - 2.24	3.11 - 3.50
Density (g/L)	984 - 1219	984 - 1219
Density (lbs/gal)	8.21 - 10.17	8.21 - 10.17
Volatiles wt. %	33.0 - 44.8	33.0 - 44.8
Water wt. %	0.0 - 0.1	0.0 - 0.1
Exempt wt. %	20.9 - 25.9	4.3 - 5.3
Water vol. %	0.0 -0.1	0.0 -0.1
Exempt vol. %	30.1	6.7

* Where TBAC emissions must be counted/recorded 0.44 lbs per RTS gallon.

Recommended Spreading Rate

768 - 863 sq. Ft. At 1.0 mil dry film per us gallon (varies by color). Coverage figures do not include losses due to mixing, transfer or application of coating, or losses due to surface irregularities or porosity.

Clean up

Toluene, xylene or lacquer thinner

Application precautions and limitations

Apply only when air, product, or surface temperature is above 60°F (16°C) and when surface temperature is at least 5°F (3°C) above the dew point.

All commercial coatings performance data is based on spray application at the recommended film build. If alternative application methods are employed, substrate preparation and film builds listed for spray application must be followed.

To the best of our knowledge, the technical information in this bulletin is accurate; however, since PPG Industries, Inc. is constantly improving its coatings and paint formulas, the current technical data may vary somewhat from what was available when this bulletin was printed. Contact your PPG Distributor for the most up-to-date information.

SAFETY

These materials are designed for application only by professional, trained personnel, using proper equipment under controlled conditions and are not intended for sale to the general public. Safe application of paints and coatings requires knowledge of equipment materials and individual training. Directions and precautionary information on both equipment and products should be carefully read and strictly observed for personal safety and property protection. Consideration must be given to eliminate conditions, which may generate hazardous atmospheres during spray application or subject operators or bystanders to injury or illness. Special precautions must be taken when utilizing spray equipment, particularly airless equipment. High-pressure injection of coatings into the skin by airless equipment may cause serious injury requiring immediate medical attention at a hospital. Treatment advice may also be obtained from Poison Centers. Air quality should be maintained with adequate ventilation; applicators can achieve additional protection by wearing respirators and other protective garments such as gloves and overalls. In all cases, wear protective eye equipment. During the application of all coatings materials, all flames, welding and smoking must be prohibited. Explosion proof equipment must be used when coating these materials in confined areas.

PRECAUTIONARY INFORMATION

Before using the products listed herein, carefully read each product label and follow directions for its use. Please read and observe all warnings and precautionary information on all product labels. Prevent all contact with skin and eyes and breathing of vapors and spray mist. Repeated inhalation of high vapor concentrations may cause a series of progressive effects including irritation of the respiratory system, permanent brain and nervous system damage and possible unconsciousness and death in poorly ventilated areas. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

KEEP OUT OF THE REACH OF CHILDREN

MEDICAL RESPONSE

Emergency Medical or Spill Control Information (304) 843-1300. CANADA (514) 645 - 1320 Have label information available.

MATERIAL SAFETY DATA SHEET

Material Safety Data Sheets for the PPG products mentioned in this publication are available through your PPG Distributor.

FOR ADDITIONAL INFORMATION REGARDING THIS PRODUCT, SEE THE MSDS AND LABEL INFORMATION.

PPG Industries
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We're Everywhere You Look

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